

Narragansett Bay Research Reserve “Teachers on the Estuary” 2009 Stewardship Projects

Patricia Busse from **Tiverton High School** in Rhode Island wrote a stewardship plan outlining the installation of monofilament fishing line recovery bins at fishing piers, boat ramps and Narragansett Bay access points throughout their town. Her project was featured in an article in the Herald News, Fall River, Massachusetts.



Kathleen Couchon from **Narragansett High School** in Rhode Island submitted a stewardship plan describing how her students can communicate the value of estuaries to a larger audience. Her students studied the Pettaquamscutt (Narrow) River estuary using Lesson Three from the National Estuarine Research Reserve System’s ‘Estuaries 101’ Life Science Module. As a result of the lesson, each student designed a color bumper sticker or decal that illustrates an estuarine characteristic that resonates with him or her and illustrates the need to protect estuaries. The students’ overall favorite design will be printed and distributed throughout the Town of Narragansett.

Jane O’Connell from **Gilbert Stuart Middle School** in Rhode Island planned to have her students collect seeds from *Spartina Alterniflora* commonly known as salt marsh cordgrass. In partnership with Save the Bay, the students grew cordgrass plants in the classroom and planted their seedlings in a salt marsh restoration site at Fields Point in Providence approximately two miles from the school.

Peter Bertash and **Kim Martino** along with 130-140 students from **Thomas A Edison Career and Technical High School** in New York City developed a plan to keep computer electronic or e-waste out of the landfill by collecting old electronics for recycling. Students helped to collect old high tech electronics and hardware in an ecologically responsible manner, and helped to spread this ethic into their communities and future workplaces.

Pictured to the right are Darrell Balthazar and Andrew Shaw, two students from Mr. Bertash's and Ms. Martino's Environmental Science classes. The students demonstrate the school's commitment to completely eliminating e-waste from the school's waste stream by taking part in Edison's annual spring "roundup" when students help collect outdated and broken computers monitors, and peripherals, throughout the building. The components are then recycled through a partnership with Dell Computers.

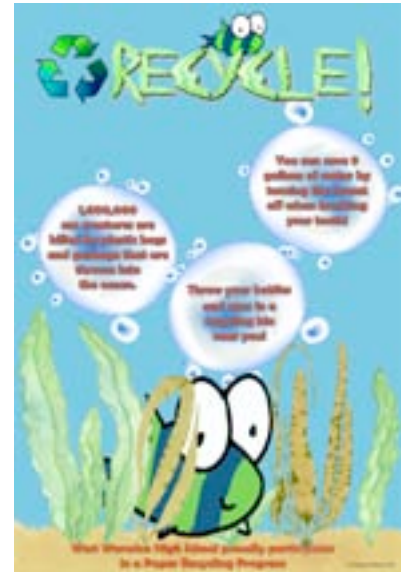


Richard Bellavance with **Fatima High School** in Rhode Island planned to develop a database of water quality parameters with students to determine the feasibility of establishing an oyster cultivation facility at their school in partnership with Roger Williams University. His stewardship plan outlines having students survey a potential sight and testing the location's water quality parameters. Examples of some of the sampling and testing equipment used by students include: 60ft. seine, assorted dip nets, assorted plankton nets, graduated sieves, Hobo data loggers, LaMotte marine water test kit, quadrats, and Flinn bacterial pollution test kit (*E. coli*).

Adam Reis from **Narragansett High School** in Rhode Island wrote a stewardship plan for the collection of water chemistry data from the Narrow River estuary. Students collected water quality data over several months and created a flier to inform their parents of their project, as well as to promote the importance of estuary health to their community. He predicted students would understand causes of water quality parameter fluctuations and relationships between parameters.



Christine Kirch's stewardship plan outlined the placement of recycling bins in all of the classrooms at **West Warwick High School** in Rhode Island. Students measured the volume of recyclables being collected prior to the introduction of recycling bins, and after. They also graphed this data. To the right is a poster created by her students. The design was produced to raise awareness of the importance of recycling and the posters were displayed around the school.



Barbara Cavanagh and her 8th graders from **Westport Middle School** in Massachusetts built a compost bin to recycle shredded paper and garden debris for their school. They also planned to plant a schoolyard garden with native plants.



Elaine Amaral from Rhode Island's **Portsmouth High School** partnered with Clean Ocean Access, a local non-profit group dedicated to protecting the ocean and public beach access, on her stewardship project. Her students participated in the International Coastal Cleanup and were photographed and quoted in the Newport Daily News for their efforts in the event. In addition to picking up trash, the students collected data on beach refuse to be analyzed in the winter months. Elaine's students also co-hosted two additional cleanups. As an additional stewardship project component, her students organized and implemented an "Aqua-Palooza" event (pictured at left) in which they visited a first grade class to teach them about issues facing Narragansett Bay. The students set up four interactive stations for the class to increase awareness about threats facing marine life and the importance of environmental protection.

Elena Gourlis Drane along with her students from **Boston College High School in Massachusetts** set out to acquire information on the inhabitants of the local estuary, while recording any observations of invasive species. Elena hopes her students developed an understanding of the biodiversity of the local estuary at Pattens Cove in Dorchester, Massachusetts. In addition, students improved their observation skills, and took ownership of the local estuary by becoming more familiar with the environment and its inhabitants.

Margaret Brumsted and her 11th and 12th grade marine science students from **Dartmouth High School** in Massachusetts developed a long term ecological study of a salt marsh with invertebrates collected in litter bags. Their project expanded into a partnership with the Allens Pond Wildlife Sanctuary in Westport, Massachusetts, that included students mapping invasive phragmites reeds, installing symbolic fencing around shorebird nesting sites and surveying and comparing invertebrate populations in live and dead salt marshes.



Joel Rodriguez planned a waste audit and recycling program with his students at the **City Parks Foundation** in New York City. Joel's objectives included having students understand their role in reducing garbage generated in New York City and comprehending the impact of excessive waste generation on the environment. Joel planned to have students conduct a waste audit for the school cafeteria and the classroom. He planned to reinforce the 4R's: re-think, reduce, re-use and recycle.

Audrey Kampper and her students at **Cranston High School East** in Rhode Island planned to produce a newsletter about their local environment and the Pawtuxet River. Audrey believes strides have been made over the past thirty years to clean up the river, but she recognizes it will take informed citizens to provide the greatest impact in cleaning and protecting the Pawtuxet River and its surrounding watershed. With this in mind, the newsletter's focus is on the Pawtuxet River, Stillhouse Cove, Providence River and Narragansett Bay.